

REMARKS

Claims 1-23 are pending in the application. Claims 1-23 were rejected by the Office Action of September 28, 2005. Reconsideration of the Claim rejections is requested in view of the Claims amendments presented herein, the Examiner Interview and the following Remarks.

A telephonic interview with Examiner Jefferson Evans was conducted on December 9, 2005, through an Applicant Initiated Interview Request, in regard to the above-referenced application. The participants of the interview included Examiner Jefferson A. Evans and Attorney Jeffrey Wax. No exhibits were utilized during the interview. The Office Action cited references were discussed including Zang '833 (US patent 5,839,833) and Leuthold '986 (US patent 5,524,986). Applicant's pending claims 1-23 were also discussed in view of the aforementioned patents.

Independent Claims 1, 9 and 16 are herewith amended to more clearly recite Applicants novel invention. No new matter has been added.

Claims Rejected Under 35 U.S.C. § 112

The Office Action rejects claims 4, 5, 8, 11, 12, 15, 19, 20 and 23 under 35 U.S.C. 112, second paragraph.

In particular, claims 4, 11 and 19 are rejected since the Office Action states that "journal bearings" lacks antecedent basis. Applicants respectfully disagree given that case law has established that "a" can also mean "one or more than one" depending on context. Nevertheless, to more clearly recite Applicants invention, claims 4, 11 and 19 are herewith amended to claim "a first journal bearing and a second journal bearing," where "a journal bearing" as referred to in claim 3 refers to more than one journal bearing.

Claims 4, 5, 11, 12, 19 and 20 are rejected since the Office Action states the claims refer to an arbitrary part of an unclaimed structure having no defined definitions. Applicants submit that while one skilled in the art of spindle motors would comprehend the meaning of these claims, and

that these structures are described in Applicants specification, Applicants amend claims 4, 5, 11, 12, 19 and 20 to more clearly claim the invention.

Claims 8, 15 and 23 are rejected as being indefinite. The Office Action erroneously states that element 226 corresponds to the secondary thrust surface. Applicants submit that Applicants description defines element 226 as counterplate 226. Nevertheless, Applicants amend claims 8, 15 and 23 to claim a second thrust surface formed on at least one of the rotatable component and the stationary component.

Claims Rejected Under 35 U.S.C. § 102

The Office Action rejects claims 1, 3-16, and 18-23 under 35 U.S.C. 102(b) as being anticipated by Zang '833 (US patent 5,839,833). The Office Action also rejects claims 1, 2, 6-9, 13-17, and 21-23 under 35 U.S.C. 102(b) as being anticipated by Leuthold '986 (US patent 5,524,986)

Applicants traverse the claims rejection. In order to serve as a §102 reference, the reference must teach every aspect of the claimed invention either explicitly or impliedly (MPEP §706.02). The cited references Zang '833 and Leuthold '986 have not done so for at least the following reasons.

Applicants Claimed Invention

Applicants claimed invention is directed in part at an inboard thrust surface that maintains fluid flow through a journal bearing. "Inboard" is defined in the description (par. 26) as situated between the fluid recirculation path and the journal. The recirculation path is provided in part to purge air from the journal bearing and other fluid containing areas. (Summary, par. 7). Further, any air in the bearing is driven in a direction opposite to a pressure increase, air being driven toward recirculation path 224 where it is swept toward capillary seal 340 and released. (Applicants Description, par. 29).

Further, by employing an inboard thrust surface that provides fluid flow, journal bearing asymmetry can be minimized or eliminated. Axial span is then maximized between journal bearings, reducing wobble or run-out between relatively rotating components. In another embodiment, journal axial length can be minimized for low profile disc drives.

Applicants herewith amend independent claims 1, 9 and 16 describing a capillary seal formed adjacent to the recirculation path to more clearly recite the claimed invention. It is submitted that independent claims 1, 9 and 16 are in allowable form.

The cited Reference Zang '833:

In contrast to the present invention, Zang '833 describes a bearing unit having particle traps which do not rely on global lubricant recirculation to pump particles into the traps. (Zang '833, Summary). The configuration and location of the traps eliminate the need for global recirculation of bearing lubricant. (Zang '833, Abstract).

Numerous particle traps are defined along the inner radial walls such that particles and lubricant exiting the journal bearing are forced directly into the trap (see Zang '833 claim 1, col. 6, lines 40-43.). Applicants submit that these particles and lubricant would include air, where air would become trapped in the particle traps.

Further, Zang '833 states that the thrust bearings 40 and 42 are “designed to provide adequate axial bearing stiffness and damping” (Zang '833, col. 4 , lines 36-37). Whereas, Applicants first thrust surface maintains fluid flow through a journal.

The cited Reference Leuthold '986:

Leuthold '986 describes a flexible membrane for fluid retention that yields to increased pressure and volume of fluid. Leuthold '986 states, “In both of the designs of FIG. 3 and FIG. 4, the end of the journal bearing opposite the thrust plate defines the only opening of the lubricant container to the outside...” (Leuthold '986, col. 5, lines 59-62).

Further, Leuthold '986 describes a meniscus and a capillary seal 160 in the region 190, which is adjacent to the journal bearing. In contrast, the present invention claims the capillary seal formed adjacent to the recirculation path, an area of fluid flow and lower pressure, thereby encouraging air to travel out the capillary seal.

Applicants Dependent Claims 2-8, 10-15 and 17-23

It is submitted that Applicants dependent claims 2-8, 10-15 and 17-23 are allowable for at least the reasons stated above with regard to their independent claims. Further, it is submitted that Applicants dependent claims recite further features and combinations of features that are patentably distinct and not taught or suggested by Zang '833 and Leuthold '986.


CONCLUSION

In view of the foregoing, it is submitted that claims 1-23 as amended patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If the Examiner believes a telephone conference would be useful in moving the case forward, please contact the undersigned at Tel. (310) 312-1500.

Respectfully submitted,
THE WAX LAW GROUP


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By: 
Jeffrey S. Wax
Reg. No. 51,364
Tel. (310) 312-1500

Jeffrey S. Wax
Wax Law Group
2118 Wilshire Boulevard
Suite 407
Santa Monica, California 90403

Tel. (310) 312-1500

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 15, 2005.


Virginia Wilson

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